REMARKS

The Office Action dated November 18, 2008, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

Claims 1-20 are currently pending in this Application. By this Amendment, claims 1, 12, 16, and 20 have been amended to be in better form. No new matter has been added.

In the Office Action, Claims 1 and 20 were objected to for informalities. In response, Claims 1 and 20 have been amended to be in better form. Withdrawal of the objections to Claims 1 and 20 is respectfully requested.

Claims 1-10 and 12-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0171142 to Kaji ("Kaji") in view of U.S. Patent No. 6,047,085 to Sato et al. ("Sato"), Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kaji in view of U.S. Patent Application Publication No. 2002/0028710 to Ishihara et al. ("Ishihara"), Claim 4 was rejected to under 35 U.S.C. §103(a) as being unpatentable over Kaji and U.S. Patent No. 6,047,085 to Sato et al. ("Sato"), further in view of U.S. Patent No. 7,006,693 to Shibuya ("Shibuya"), and Claim 16 was rejected to under 35 U.S.C. 103(a) as being unpatentable over Shimura in view of Sato. It is noted that Claims 1, 12, 16, and 20 have been amended. To the extent that the grounds for rejection are still applicable to the currently pending claims, they are respectfully traversed.

Claim 1, as amended, recites an entertainment apparatus using cards, comprising a card photographing part for <u>fixing</u> said card in a predetermined position, a

photographic device that is configured to photograph said design of said card <u>that is set at said predetermined position in said card photographing part</u> and <u>to fetch</u> a photographic pixel data array, a database including a plurality of entries individually corresponding to said plurality of cards, each of the entries including a pair of a card ID and a comparison data array, a card identifier for searching said database for a specific comparison data array based on said photographic pixel data array and obtaining a card ID pairing up with the specific comparison data array, and an information processor for performing said information processing with said card ID obtained by said card identifier as an input, wherein the photographic device includes an image sensor for photographing the design and outputting a photographic signal, a data array former for sampling the photographic signal and forming a data array, and a photographic pixel data array former for re-sampling the data array and forming the photographic pixel data array and forming said photographic pixel data array, wherein the data array formed by the data array former is constituted by a plurality of pixel data, wherein the photographic pixel data array formed by the photographic pixel data array former is constituted by a plurality o photographic pixel data, and_wherein the photographic pixel data array former sequentially extracts a predetermined number of pixel data of pixels adjacent to each other in an image represented by the photographic signal from the plurality of pixel data constituting the data array while the extracted pixel data are changed sequentially, and produces said single photographic pixel data based upon the extracted predetermined number of pixel data every time the predetermined number of pixel data is extracted.

Similar features, such as "card photographing part," "photographic pixel data array," and "executing information procession" features as recited in amended Claim 1

are also included in amended Claims 12, 16, and 20.

As previously submitted, according to the present invention, the pixel data are extracted with a unit of a predetermined number from the photographic signal output by the image sensor (sampling), and a single photographic pixel data is produced from the predetermined number of the pixel data (re-sampling). None of the cited art teaches or suggest such a sampling and re-sampling process.

In addition, in Kaji, the card and the light source are positioned opposite to each other; and therefore, the light source is reflected onto the card. In such a case, an image of the light source reflected onto the card may be included in the photographed image. In contrast, in the present invention, the card is indirectly lighted through the reflection. In such manner, the light source is not reflected onto the card and thus, there is no problem of the light source image being included in the photographed image. Therefore, in the present invention, it is possible to perform the pattern matching with accuracy.

Further, in Kaji, the card 20 is arranged by the player at an arbitrary position on the panel 24 (see Figure 4) where a plurality of cards 20 are put, not a fixed position, as taught by the present invention.

After the card is arranged arbitrarily, as shown the step S15 in Figure 10 of Kaji, a rough provisional position and an angle are evaluated from an image of which the resolution is made half. In this case, the object to be detected is the card data 20 (Figure 9) on the back of the card, and is the binary image of black and white. Therefore, a sobel filter is used in Kaji for extracting an edge or container in the longitudinal direction and the lateral direction. The sobel filter processing is entirely

different from the sampling processing for absorbing the positional deviation as in the present invention. In Kaji, after extracting the edge, the rough angle and position are evaluated through patter matching. Furthermore, the thinning processing is performed to delete unnecessary coordinates.

Next, in Kaji, in the step S16 of Figure 10, an image (card data 20) in the vicinity of the coordinates that is roughly evaluated in the step S15 is captured from the image before the resolution is lowered, that is, from high resolution image, and the edge or container thereof is extracted. Afterward, Kaji performs a patter matching to evaluate accuracy and position.

As described above, in Kaji, as clearly understood from the description of the specification and the drawings, e.g., Figures 9 and19 and the paragraphs [0011], [0050], the detecting object is the card data that is binary data in black and white. Furthermore, in Kaji, as the player can arrange the card at an arbitrary position, it is necessary for Kaji to capture images and to detect the angle and position, as described above.

Sato discloses an image averaging section 112 that performs averaging of the image (see Figures 12 and 13 of Sato) and performs the pattern matching with respect to the averaged image.

As discussed in the above, Kaji is to extract black and white card data. Therefore, if Sato was to be combined with Kaji, the black and white card data detected by Kaji would have been averaged out by Sato's image averaging section 112. As a result, it becomes impossible to read the code and to achieve the object of Kaji. In other word, it would not be possible to combine Sato with Kaji because Kaji, thus

combined, will not be able to operate.

Therefore, it would not have been obvious and there is no rational reason for one skilled in the art to combine Kaji and Sato to achieve the claimed invention. At least based on the reasons stated above, amended Claims 1, 12, 16, and 20 are allowable over Kaji in view of Sato.

Applicants further respectfully submit that none of Ishihara and Shibuya cures the deficiency of Kaji and Sato. In addition, as amended Claims 1 and 12 are allowable, Claims 2-3 and 5-10, and 13-15 that depend from amended Claims 1 and 12 are likewise allowable at least due to their dependencies from allowable independent claim.

Regarding the rejection of independent Claim 16, Shimura fails to teach or suggest at least the combinations of steps of "(d1) sequentially extracting a predetermined number of pixel data of pixels adjacent to each other in an image represented by the photographic signal from the plurality of pixel data constituting the data array while the extracted pixel data are changed sequentially," " (d2)producing said single photographic pixel data based upon the predetermined number of pixel data extracted by the step (d) every time said step (d1) is executed," and "(f) executing information processing according to the obtained card ID," as recited in amended Claim 16.

On contrary to the assertions of the Office Action, Sato fails to cure the deficiency of Shimura. As described above, Sato teaches a method to average a color pattern and then compares the average pattern with a standard pattern. Such method is different from the present invention and will average out black-and-white data. Therefore, it would not have been obvious for one skilled in the art to combine Shimura and Sato to

achieve the claimed invention of amended Claim 16. Therefore, amended Claim 16 is

allowable over the cited art.

It is noted that Claim 16 was rejected as being unpatentable over Shimura in

view of Sato, but its dependent Claims 17-19 were rejected as being unpatentable over

Kaji in view of Sato. As such inconsistency has caused confusion, Applicants

respectfully request a clarification from the Examiner.

CONCLUSION

In view of the foregoing, it is respectfully submitted that this application is in

condition for allowance. Favorable reconsideration and prompt allowance of claims 1-

20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to

place this application in even better condition for allowance, the Examiner is requested

to contact the undersigned at the telephone number set forth below.

In the event this paper is not considered to be timely filed, the Applicants hereby

petition for an appropriate extension of time. Any fees for such an extension, together

with any additional fees that may be due with respect to this paper, may be charged to

counsel's Deposit Account No. 01-2300, referencing Attorney Dkt. No. 100341-00062.

Respectfully submitted,

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